

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

35. (Previously Presented) A semiconductor apparatus comprising
a semiconductor device;

an electrically insulating layer having an inclined portion formed on the semiconductor device;

at least one external connection terminal formed on the electrically insulating layer; and

a wiring formed on the electrically insulating layer and provided for electrically connecting the external connection terminal to a circuit electrode of the semiconductor device,

wherein the electrically insulating layer has a protrusive portion which is higher than a height of a flat portion of the electrically insulating layer near a boundary between the inclined portion and the flat portion having a substantially uniform thickness, and

wherein a part of the wiring is formed on the protrusive portion, and the wiring comprises a copper layer and a nickel layer formed on the copper layer.

36. (Previously Presented) A semiconductor apparatus according to claim 35,

wherein the electrically insulating layer relaxes stress occurring between the semiconductor device and a substrate mounting the semiconductor device.

37. (Previously Presented) A semiconductor apparatus according to claim 35,

wherein the wiring has a redundancy to deforming of a stress relaxation layer by a wiring portion formed on the protrusive portion.

38. (Currently Amended) A ~~semi-conductor~~semiconductor apparatus according to claim 35,

wherein the wiring comprises a copper layer formed by electroplating and a nickel layer formed on the copper layer by electroplating.

39. (Previously Presented) A semiconductor apparatus according to claim 35,

wherein, when the copper layer is deformed subject to deformation of the electrically insulating layer, the nickel layer serves to restore the copper layer to its original shape before deformation.

40. (Previously Presented) A semiconductor apparatus according to claim 35,

wherein the electrically insulating layer is formed by printing by use of a mask.

41. (Previously Presented) A semiconductor apparatus according to claim 40,
wherein the electrically insulating layer includes particles.

42 (Previously Presented) A semiconductor apparatus according to claim 35,
wherein the electrically insulating layer has a thickness in a range of from 35 to 150 micrometers.

43. (Previously Presented) A semiconductor apparatus according to claim 35, further comprising an electrode pad formed on the semiconductor device;
wherein the electrically insulating layer is formed in a range of the electrode pad being not covered on the semiconductor device.

44. (Previously Presented) A semiconductor apparatus according to claim 35,
wherein the wiring further has a Cr layer between the electrically insulating layer and the Cu layer.

45. (Previously Presented) A semiconductor apparatus according to claim 44,
wherein the Cr layer has a thickness in a range of from 75 nanometers to 015 micrometers.

46. (Previously Presented) A semiconductor apparatus according to claim 35,

wherein the external connection terminal has a first external connection terminal formed on the flat portion of the electrically insulating layer and a second external connection terminal formed on the inclined portion of the electrically insulating layer.

47. (Previously Presented) A semiconductor apparatus according to claim 35,

wherein the external connection terminal has a first external connection terminal formed near the center of the electrically insulating layer and a second external connection terminal formed more outwardly from the center of the electrically insulating layer than the first external connection terminal; and

wherein, when the semiconductor apparatus is mounted on a substrate, a contact angle 2 between the first external connection terminal and the electrically insulating layer is smaller than a contact angle 1 between the second external connection terminal and the electrically insulating layer.

48. (Previously Presented) A semiconductor apparatus according to claim 35,

wherein some of the external connection terminals near an outer circumference of the semiconductor apparatus are not electrically connected to the wiring.

49. (Previously Presented) A semiconductor apparatus comprising:

a semiconductor device;

an electrically insulating layer having an inclined portion formed by printing an electrically insulating material by use of a mask;

an external connection terminal formed on the electrically insulating layer; and

a wiring formed on the electrically insulating layer and provided for electrically connecting the external connection terminal to a circuit electrode of the semiconductor device,

wherein the electrically insulating layer has a thickness in a range of from 35 to 150 micrometers and a protrusive portion, the position of which is higher than a flat portion of the electrically insulating layer near a boundary between the inclined portion and the flat portion having a substantially uniform thickness, and

wherein a part of the wiring is formed on the protrusive portion, and the wiring includes a copper layer and a nickel layer formed on the copper layer.

50. (Previously Presented) A semiconductor device comprising:

a semiconductor device;

an electrically insulating layer having an inclined portion formed by printing an electrically insulating material by use of a mask;

an external connection terminal formed on the electrically insulating layer; and

a wiring formed on the electrically insulating layer and provided for electrically connecting the external connection terminal to a circuit electrode of the semiconductor device,

wherein the electrically insulating layer has a protrusive portion, the position of which is higher than a flat portion of the electrically insulating layer near a boundary between the inclined portion and the flat portion having a substantially uniform thickness, and

wherein a part of the wiring is formed on the protrusive portion, and the wiring includes a copper layer and a nickel layer formed on the copper layer.